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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,212	11/12/2003	Michael E. Connell	2269-5083.1US (01-0428.01	6326

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EXAMINER	
LANDAU, MATTHEW C	

ART UNIT	PAPER NUMBER
2815	

NOTIFICATION DATE	DELIVERY MODE
02/21/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTOMail@traskbritt.com

Office Action Summary	Application No.	Applicant(s)	
	10/706,212	CONNELL ET AL.	
	Examiner	Art Unit	
	Matthew C. Landau	2815	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 November 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-8,10-14,16-20 and 22-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-8,10-14,16-20 and 22-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/21/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 4, 12, and 18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation "including one at least one of a UV acrylic, thio-phene material, ..." is not sufficiently supported by the originally filed application. The specification supports using one of the listed materials, but does not support using more than one of the materials in a layer. The scope of "at least one of" includes having more than one of the materials. Therefore, the limitation is new matter.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 12, and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitation "including one at least one of" renders the claim indefinite. The claim should be rewritten to recite either "one of" or "at least one of".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 5-8, 10, 11, 13, 14, 16, 17, 19, 20, and 22-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Sakaki et al. (US PGPub 2003/0017652, hereinafter Sakaki).

Regarding claims 1, 7, 13 and 19, Figure 3 of Sakaki discloses a semiconductor die comprising: a semiconductor substrate 1 having a front side 1B and a back side 1A, a low ratio of height to horizontal dimension (see fig. 2), tensile stresses, and compressive stresses; an integrated circuit on a portion of the front side (note that the front side is also labeled 1X which is designated the "circuit formation surface"); a passivation layer 7 (resin, para. [0096]) covering a portion of the integrated circuit causing a stress on at least a portion of the substrate; and a stress-balancing layer 2 covering at least a portion of the backside substantially balancing the stress caused by the passivation layer covering a portion of the integrated circuit (see paras. [0106] and [0107], esp. [0107] at the third sentence, which teach that layer 7 causes a stress which is compensated by layer 2), the stress or force balancing layer comprising a temporary adhesive material (paragraph 127, layer 2 is thermally adhered to substrate 1). Additionally, whether or not the adhesive is temporary or permanent is merely a matter of the intended use, which does not structurally distinguish the claimed invention over the prior art. Since Sakaki

teaches layer 2 is made of an epoxy based resin (paragraph [0107]), the epoxide in the epoxy resin can be considered a "reinforcement material". Further, the limitation "chemical vapor deposition material" is a product-by-process limitation that does not patentably distinguish the claimed invention over the prior art. Layer 2 of Sakai could have been deposited by CVD, and therefore satisfies this limitation. Note that Sakaki teaches layer 2 applies a compressive stress (by contraction) to the substrate (paragraph [0106]). A compressive stress in a first direction (e.g., vertical) creates a tensile stress in a direction perpendicular to the first direction (e.g., horizontal). Therefore, the substrate has both compressive and tensile stresses.

Regarding claims 2, 8, 10, 14, 16, 20 and 22, Sakaki teaches that the balancing layer 2 is a resin, which may be considered either a single component layer or a homogenous mixture of a strong material. The limitations "sensitive to an optical energy altering the material by at least one of heating..." and "for laser-marking" are merely recitations of intended use that do not structurally distinguish the claimed invention over the prior art. The balancing layer is capable of being modified (marked) by laser beam.

Regarding claims 5, 6, 11, 17, 23 and 24, Sakaki teach in figure 9 an adhesive layer 41A attached to the stress-balancing layer 2 (para. 0136). The limitation "sensitive to an optical energy altering the material by at least one of heating..." are merely recitations of intended use that do not structurally distinguish the claimed invention over the prior art. The adhesive material is capable of being modified (marked) by laser beam.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4, 12, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakaki.

Regarding claims 4, 12, and 18, Sakaki discloses the stress-balancing layer comprises an epoxy resin. Sakaki does not specifically disclose the layer comprises an acrylic or urethane material. However, it would have been obvious to the ordinary artisan at the time of invention to use an acrylic resin or a urethane resin (both well known resins) for the purpose of selecting a well known, thermosetting resin. Note that Sakai specifically discloses the stress-balancing layer is marked by a laser (paragraph [0150]).

Response to Arguments

Applicant's arguments filed November 8, 2007 have been fully considered but they are not persuasive.

Applicant argues that the epoxy resin film of Sakaki does not meet any of the claimed possibilities. However, as explained in the above rejection, since Sakaki teaches layer 2 is made of an epoxy based resin (paragraph [0107]), the epoxide in the epoxy resin can be considered a "reinforcement material". Further, the limitation “chemical vapor deposition material” is a

product-by-process limitation that does not patentably distinguish the claimed invention over the prior art. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Layer 2 of Sakai could have been deposited by CVD, and therefore satisfies this limitation.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew C. Landau whose telephone number is 571-272-1731. The examiner can normally be reached on 9:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Parker can be reached on 571-272-2298. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew C. Landau/
Primary Examiner, Art Unit 2815